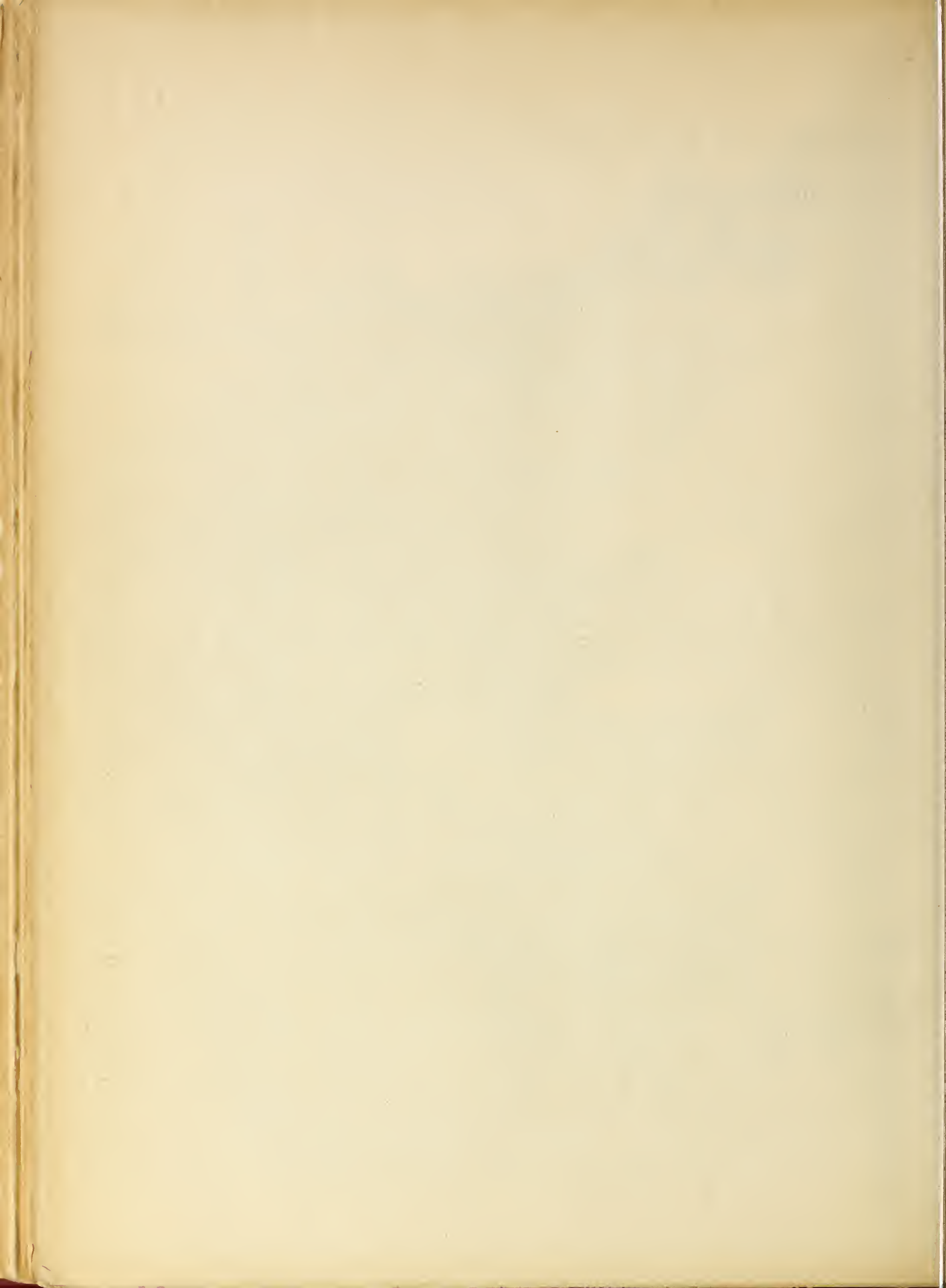


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ESTIMATES OF DAMAGE TO CORN BY THE EUROPEAN CORN BORER
IN THE UNITED STATES IN 1948

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It is estimated that in the United States in 1948 the European corn borer (*Pyrausta nubilalis* (Hbn.)) caused a loss of 85,485,000 bushels of grain corn valued at \$99,107,000. In addition, damage to sweet corn amounted to \$4,129,000, making the total damage \$103,236,000. This figure is about \$6,466,000 higher than a similar estimate for 1947. In identical areas where corn is grown for grain surveyed in both 1947 and 1948, the loss was estimated to be 38,631,000 bushels in 1947 and 81,871,000 bushels in 1948. In 1948 the increase in yield practically offset the decrease in prices paid for corn so that the dollar losses for 1947 and 1948 were approximately the same.

The 1948 estimates include damage figures for three States--Nebraska, South Dakota, and West Virginia--in which losses were considered negligible in 1947. The estimates of damage to both corn grown for grain and sweet corn are given in table 1.

The estimates of damage for each State were calculated on a county or district basis, depending upon available data. Borer populations were actually sampled in the fall of 1948 in a total of 635 counties.^{1/} A total of 892 counties were included in the estimates of damage by using average populations for a district or an average of neighboring counties for 257 counties. A total of 1168 counties are known to be infested, but no estimate of damage was made for 276 of them, because of insufficient data or because borer populations in them have not reached measurable numbers.

Production figures for the current year were utilized when available, or estimates were based upon census or Crop Reporting Service data. In many cases the latter data were adjusted according to recent trends. Most data on production and values were obtained from crop production, agricultural prices, and truck crop reports issued by the Bureau of Agricultural Economics, U. S. Department of Agriculture. Prices of market sweet corn were obtained from various produce markets scattered throughout the infested area.

As in the past, the established indices of loss of 3, 5, and 8 percent per borer per plant were applied, respectively, to values of corn grown for grain, sweet corn for processing, and fresh market corn.

^{1/} See Status of the European Corn Borer in 1948, U. S. Bur. Ent. & Plant Quar. Insect Pest Survey, Special Supplement (1949) No. 1.

Table 1.--Estimates of damage by the European corn borer to corn harvested for grain and to sweet corn in the United States in 1948

State	Counties		Corn Production Bushels	Corn Harvested for Grain		Sweet Corn		Total estimated loss	
	Known to be infested	Included in estimate		Value of crop	Loss of crop	Value of crop	Loss of Crop Value		
Number	Number	1000 Bushels	1000 Dollars	1000 Bushels	1000 Dollars	1000 Dollars	1000 Dollars	1000 Dollars	
Connecticut	8	8	348	609	3	6	2,689	60	66
Delaware	3	3	3,521	4,507	115	147	718	35	182
Illinois	95	79	533,596	634,979	20,854	24,816	7,797	900	25,716
Indiana	92	92	270,686	311,289	5,861	6,740	3,992	201	6,941
Iowa	99	99	635,371	717,969	40,465	45,726	2,148	260	45,986
Kansas	16	0	-	-	-	-	-	-	-
Kentucky	76	15	7,524	9,255	133	164	408	50	214
Louisiana	1	0	-	-	-	-	-	-	-
Maine	15	13	70	129	2	4	1,970	206	211
Maryland	23	23	15,899	19,079	510	612	4,872	260	873
Massachusetts	14	14	196	343	1	2	3,773	62	64
Michigan	50	34	44,245	61,942	703	985	1,492	60	1,045
Minnesota	81	60	261,349	292,711	6,598	7,390	5,082	339	7,729
Missouri	75	55	153,667	182,864	768	914	482	28	941
Nebraska	46	24	108,712	128,280	1,199	1,414	270	8	1,423
New Hampshire	9	9	128	224	6	11	676	123	134
New Jersey	21	20	7,423	10,244	108	149	4,039	209	358
New York	60	58	4,865	7,541	47	73	8,461	322	395
North Carolina	16	3	1,245	1,681	17	23	29	2	25
North Dakota	5	0	-	-	-	-	-	-	-
Ohio	87	88	190,895	229,074	3,952	4,743	3,394	185	4,928
Pennsylvania	67	67	43,600	68,015	1,186	1,851	7,836	620	2,470
Rhode Island	5	5	37	65	3	4	572	88	93
South Dakota	37	24	90,412	98,549	2,235	2,436	158	6	2,442
Tennessee	11	0	-	-	-	-	-	-	-
Vermont	14	11	136	238	1	2	221	4	5
Virginia	53	14	5,810	8,134	145	202	379	22	224
Wisconsin	71	71	57,182	69,190	568	687	4,305	78	765
West Virginia	18	3	510	807	3	5	78	2	77
Total	1,168	892	2,437,427	2,857,718	85,485	99,107	65,842	4,129	103,236